HAZEL PARK SCHOOLS AUDITORIUM ROOF REPLACEMENT

GENERAL
DATE: June 11, 2020
PROJECT: Hazel Park Schools Auditorium Roof Replacement
OWNER: Hazel Park Schools
1620 E. Elza
Hazel Park, Michigan 48030.

SCOPE
Hazel Park Schools will receive sealed bids to furnish all labor and materials and perform all other work necessary and incidental to Hazel Park Schools replacement of the High School Auditorium Roof. The District has attached specification on the roofing materials to be used and basic roofing support structure plans for a guide to the scope of the project.

BIDS RECEIVED
Bid Proposals will be received until the time and place, as follows, where and when the opening of bid proposals will be conducted by the Owner in public:

Bid Deadline: June 25, 2020, 11:30 a.m.

Sealed Bids will be received at the following location:

LOCATION: Board of Education
Hazel Park Schools
1620 E. Elza
Hazel Park, MI 48030

Attn: Jason Zirnis, Assistant Superintendent of Business and Operations
Jason.zirnis@hazelparkschools.org
GENERAL INFORMATION

Documents will be made available by electronic transfer from the office of Jason Zirnis, Assistant Superintendent of Business and Operations, Hazel Park School District.

A sworn and notarized statement disclosing any familial relationship existing between the bidder and any member of the school board, school superintendents, or chief executive must accompany each bid. The Iran Economic Sanctions Act Compliance Form must be included as well. The board shall not accept a bid that does not include both of these statements, which are included on the proposal execution form (as attached).

Bidder shall agree not to withdraw Bid Proposal for a period of sixty (60) days after date for receipt of bids.

The right to reject any or all Bid Proposals, either in whole or in part, or to waive any informalities therein is reserved by the Owner.

All work must be completed prior to August 21, 2020.

PRE-BID CONFERENCE

There is no pre-bid conference scheduled. Bidders shall visit the site at their own availability if interested in submitting bids. Please contact Jason Zirnis, 248-658-5217 to schedule a walkthrough.
HAZEL PARK SCHOOLS
HIGH SCHOOL ROOF BID
SUBMISSION FORM BID

Company Name

City  State  Zip

Telephone number  Fax Number

Terms

The undersigned, representing the bidding firm, does by his/her signature affirm that he/she has read, understands and will comply with all the terms and conditions of this document. Further, that he/she will abide by these terms and all applicable state, federal and local laws and regulations.

Signature of Representative

Title

Date of submission

Please list comments, conditions or exceptions to the bid:

Cost of Roof Replacement  ________________

(please attach any information you deem necessary to support your plan).
Affidavit of Bidder - Familial Relationships Form

The undersigned, the District or authorized officer of
(“Bidder”), pursuant to the familial disclosure requirement provided in the The Schools District of the City of Hazel Park (the “School District”) advertisement for service bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the bidder(s) or any employee of the School District, and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

________________________________________

________________________________________

________________________________________

________________________________________

BIDDER:

________________________________________

By:

________________________________________

Its:

________________________________________

)ss.

COUNTY OF___________________________)

This instrument was acknowledged before me on the________________day of________________, 20
________________________________________________________, by
__________________________________________

________________________________________

________________________________________ County, Michigan

My Commission Expires: __________________
CERTIFICATION OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT
Michigan Public Act No. 517 of 2012

The undersigned, the owner, or authorized officer of the below-named company (the “Company”), pursuant to the compliance certification requirement provided in the School District of the City of Hazel Park’s Request For Proposal (the “RFP”), hereby certifies, represents, and warrants that the Company (which includes its officers, directors and employees) is not an “Iran Linked Business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event the Company is awarded a contract by the Southfield Public Schools as a result of the aforementioned RFP, the Company is not and will not become an “Iran Linked Business” at any time during the course of performing any services under the contract.

The Company further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or two (2) times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the Southfield Public School’s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date the it is determined that the person has submitted the false certification.

________________________________________
Name of Company

________________________________________
Name and Title of Authorized Representative

________________________________________
Signature
PART 1 - GENERAL

3.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

3.2 SUMMARY
   A. This Section includes the following:
      1. Mechanically fastened, polyvinyl-chloride (PVC) membrane roofing system.
      2. Roof insulation.
      3. Walkway pads.
   B. Related Sections include the following:
      1. Division 06 Section "Rough Carpentry" for wood nailers, curbs, and blocking.
      2. Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counterflashings.
      3. Division 07 Section "Manufactured Roof Specialties" for copings, gravel stops, roof expansion-joint covers, and gutters and downspouts.
      4. Division 07 Section "Roof Accessories" for Roof hatches.
      5. Division 07 Section "Joint Sealants."

3.3 DEFINITIONS
   A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA’s "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

3.4 SUBMITTALS
   A. Product Data: For each type of product indicated, including the following:
      1. Roofing membrane.
      2. Insulation.
      3. Each prefabricated auxiliary component.
   B. Shop Drawings: Plans, sections, details, and attachments to other Work. Include the following:
1. Base flashings and membrane terminations.
2. Tapered insulation, including slopes.
3. Insulation fastening patterns for corner, perimeter and field-of-roof locations.

C. Samples for Verification: For the following products:
1. 6 x 6inch square samples of the following:
   a. Roofing membrane in color specified.
   b. Roof insulation.
   c. Walkway pads.
2. 12-inch long samples of the following:
   a. Roofing membrane with dielectrically welded seam and concealed fastener tab.
   b. Field seam.
3. 12-inch length of termination bar.
4. Fasteners:
   a. Three (3) insulation fasteners of each type, length, and finish.
   b. Three (3) roof cover fasteners of each type, length, and finish.

D. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.

E. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
   1. Submit evidence of meeting performance requirements.

F. Qualification Data: For Installer and manufacturer.

G. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing system.

H. Research/Evaluation Reports: For components of membrane roofing system.

I. Maintenance Data: For roofing system to include in maintenance manuals.

J. Sample Warranties: For special warranties specified in this Section.

K. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

3.5 QUALITY ASSURANCE
A. Manufacturer Qualifications: A qualified manufacturer that is FM Global approval for membrane roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.

C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

D. Source Limitations: Obtain components for membrane roofing system approved by roofing membrane manufacturer.

E. Preinstallation Conference: Conduct conference at Project site. Comply with requirements in Division 01. Review methods and procedures related to roofing system including, but not limited to, the following:

1. Meet with Owner, Architect, Owner’s insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.

2. Review Owner occupied areas and the interruption that the roofing process might have on the Owner’s activity.

3. Review methods and procedures related to roofing installation, including manufacturer's written instructions.

4. Review and finalize construction schedule and verify availability of materials, Installer’s personnel, equipment, and facilities needed to make progress and avoid delays.

5. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.

6. Review structural loading limitations of roof deck during and after roofing.

7. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.

8. Review governing regulations and requirements for insurance and certificates if applicable.

9. Review temporary protection requirements for roofing system during and after installation.

10. Review roof observation and repair procedures after roofing installation.

3.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

3.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

3.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, roofing accessories, roof pavers, and other components of roofing system. The warranty shall provide for complete repairs or total replacement of the roofing system including material and labor throughout the life of the warranty.

1. Warranty shall contain no exclusions for ponded water or biological growth.

2. The manufacturer shall provide Certification of financial stability enough to insure the value of their warranty in order to protect the interests of the Owner.

3. Warranty shall be issued by the original manufacturer of the roofing membrane.

4. Warranty Period: 20 years from date of Substantial Completion.

B. Special Project Warranty: The roofing installer shall warrant the work of this section, including all components of roofing system such as membrane roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products with all corrective work at no cost to the Owner for the following warranty period:

1. Warranty Period: 2 years from date of Substantial Completion.

C. Consequential Damages: The manufacturer of the roofing membrane will provide consequential damage coverage if the roofing system is found to have failed.

PART 2 – PRODUCTS

4.1 MANUFACTURERS

A. Source Limitations: Obtain components including roof insulation, fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

4.2 PERFORMANCE REQUIREMENTS
A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.

B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

C. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.

1. Fire/Windstorm Classification: Class 1A-90.

2. Hail-Resistance Rating: MH.

D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs of which roofing system is part. Identify products with appropriate markings of applicable testing agency.

4.3 PVC ROOFING MEMBRANE

A. PVC Sheet: ASTM D 4434, Type III or IV, fabric reinforced.

1. Manufacturers:
   a. Duro-Last Roofing Inc.
   b. Carlisle SynTec Incorporated
   c. FiberTite Roofing System by Seaman Corporation
   d. Johns Mansville

2. Thickness: 50 mils (1.02 mm), nominal.


4.4 AUXILIARY MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.

1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.

B. Prefabricated components of same material, type, reinforcement, thickness, and color as PVC sheet membrane shall include the following:

1. Stack boots.
2. Roof drain boots.
3. Custom curbs and pitch pockets.
4. Parapet wall flashing
5. Expansion joint and valley sections.

C. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet membrane.

D. Termination Bar: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick, with anchors.

E. Adhesives and sealants:
   2. Termination Sealant: Compatible with materials to which membrane is to be bonded, conforming to Federal Specifications TT-598 and TT-S-00230C.
   3. Water Cut-Off Mastic: Compatible with materials with which it is used.
   4. Pitch Pocket Sealant: Shall be a single component, self-leveling silicone sealant.

F. Fasteners: Factory-coated steel fasteners and metal plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roofing membrane to steel substrate, and acceptable to membrane roofing system manufacturer.

G. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, termination reglets, cover strips, and other accessories.

4.5 ROOF INSULATION

A. General: Preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated and that produce FM Global-approved roof insulation.

B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, felt or glass-fiber mat facer on both major surfaces.

   1. Rigid, cellular thermal insulation with polyisocyanurate closed-cell foam core and manufacturer's standard facing laminated to both sides: complying with FS HH-I-1972/2, Class 1; aged R-values as designated at mean temperatures indicated, after conditioning per REC/TIMA Bulletin #281-1; and as follows:

      b. Thermal Resistivity: Minimum R-value shall equal 30 for total roof system.

C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches (1:48), unless otherwise indicated.

D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
4.6 INSULATION ACCESSORIES
A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
B. Fasteners: Factory-coated steel fasteners and metal plates meeting corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation to steel substrate, and acceptable to roofing system manufacturer.
C. Cold Fluid-Applied Adhesive: Manufacturer's standard cold fluid-applied adhesive formulated to adhere roof insulation to substrate.

4.7 WALKWAY PADS
A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads, approximately 3/16 inch (5 mm) thick, and acceptable to membrane roofing system manufacturer.
  1. Size: 24 x 24 inches (600 x 600 mm).
  2. Color: Contrasting color to the roof membrane.
  3. Location: See Part 3

PART 3 - EXECUTION
5.1 EXAMINATION
A. Examine substrates, areas, and conditions, with Installer present, for compliance with the requirements and other conditions affecting performance of roofing system:
   1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
   2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

5.2 PREPARATION
A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
C. Install insulation strips according to acoustical roof deck manufacturer's written instructions.

5.3 ROOFING INSTALLATION, GENERAL
A. Install roofing system according to roofing system manufacturer's written instructions.
B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Install roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.

5.4 INSULATION INSTALLATION

A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with membrane roofing system manufacturer's written instructions for installing roof insulation.

C. Install tapered insulation under area of roofing to conform to slopes indicated.

D. Install one or more layers of insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2 inches (50 mm) or greater, install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.

E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.

F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding $1/4$ inch $(6 \text{ mm})$ with insulation.
   1. Cut and fit insulation within $1/4$ inch $(6 \text{ mm})$ of nailers, projections, and penetrations.

G. Mechanically Fastened and Adhered Insulation: Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
   1. Fasten insulation according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
   2. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.

5.5 MECHANICALLY FASTENED ROOFING MEMBRANE INSTALLATION

A. General: Install roofing membrane over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing membrane and allow to relax before installing.
   1. Install sheet according to ASTM D 5082.
   2. Mechanically fasten or adhere roofing membrane securely at terminations, penetrations, and perimeter of roofing.
   3. Accurately align roofing membranes and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
   4. Apply roofing membrane with side laps shingled with slope of roof deck where possible.
5. Install roofing membrane and auxiliary materials to tie in to existing roofing.

B. Roof Membrane:

1. Orient the roofing membrane so that the fastening tabs are perpendicular to the ribs or corrugations of a steel deck or perpendicular to the width of the prestressed concrete “T” slabs, etc. When laying out each tab, pull the membrane tight without stretching material.

2. Unfold first sheet along edge of roof or parapet wall. Position and fasten first tab with plates and screws according to membrane manufacturer specifications. Unfold roofing sheet to the second fastening tab, concealing previously fastened tab. Pull tab tight and secure to deck as herein described, maintaining proper plate and screw frequency, squarely placed. Continue unfolding and fastening roofing membrane until entire sheet is in place. Install the adjacent roofing membrane sheets using the fastening procedure described. Proceed until all sheets are in place, thus forming a monolithic roof cover. Make sure all edges of each sheet of roofing are fastened with the same fastener spacing as tabs or are welded to another sheet that is fastened in this manner.

C. Field Seams: Clean seam areas, overlap roofing membrane, and weld using automatic heat welding machine or hot air hand welder in accordance with the manufacturer's specifications. Weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.

1. Test/probe all seams to verify seam weld continuity once welds have thoroughly cooled. Apply lap sealant to seal cut edges of roofing membrane.

2. Repair all seam deficiencies the same day they are discovered.

3. Apply Cut Edge Sealant on all cut edges of reinforced membrane (where the scrim reinforcement is exposed) after seam probing is complete daily.

D. Attachment of Membrane: Provide and secure both perimeter and field membrane sheets in accordance with the manufacturer's most current specifications and details.

1. Membrane fastening for buildings that are greater than 40 feet and/or located within high wind zone (greater than 110 mph):
   
a. Install according to manufacturer’s recommendations for special field, perimeter and corner fastening.

2. Membrane shall be fastened with approved fasteners, 18 inches on center along bottom of all parapet walls, elevation changes and perimeter edges.

3. Membrane shall be fastened around cut-outs with approved fasteners 12 inches on center or a minimum of 1 per round penetration having a diameter of not more than 6 inches.

5.6 BASE FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer’s written instructions.
B. Apply solvent-based bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with sheet flashing.

D. Clean seam areas and overlap and firmly roll sheet flashings into the adhesive. Weld side and end laps to ensure a watertight seam installation.

E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

5.7 AUXILIARY INSTALLATIONS:

A. Stacks: Install prefabricated round stack boots for roof vents and pipes in accordance with manufacturer's written instructions.

B. Roof Drains: Install a prefabricated drain boot in accordance with manufacturer's written instructions.

1. Spread sealant or mastic bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.

C. Custom Curbs/Pitch Pockets: Install prefabricated custom curbs and pitch pockets in accordance with manufacturer's written instructions.

D. Parapet Walls: Install prefabricated parapet wall flashing in accordance with manufacturer's written instructions.

E. Expansion Joints/Valleys: Install prefabricated expansion joint/valley section in accordance with manufacturer's written instructions.

5.8 WALKWAY INSTALLATION

A. Flexible Walkways: Install walkway products in locations indicated or as indicated below. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

1. Locations: Install flexible walkways at top and bottom of ladders, around roof top equipment (RTU, exhaust fans, etc), roof hatches and at one location at roof transitions greater than 30-inches.

5.9 FIELD QUALITY CONTROL

A. Testing Agency: Owner reserves the right to engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test reports.

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Architect.

1. Notify Architect or Owner 48 hours in advance of date and time of inspection.

C. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with specified requirements.
D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

5.10 PROTECTING AND CLEANING

A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

**END OF SECTION**